

Amendments to the Specification

Please replace the paragraph beginning on page 2, line 8 with the following amended paragraph:

The first in line was a factor called brain-derived neurotrophic factor (BDNF) SEQ ID NO: 42, now also referred to as neurotrophin-2 (NT-2) which was cloned and sequenced by Leibrock, J. et al. (Nature 341, 149-152 [1989]). This factor was originally purified from pig brain (Barde, Y. A. et al., EMBO J. 1, 549-553 [1982]), but it was not until its cDNA was cloned and sequenced that its homology with NGF became apparent. The overall amino acid sequence identity between NGF and BDNF (NT-2) is about 50%. In view of this finding, Leibrock et al. speculated that there was no reason to think that BDNF and NGF should be the only members of a family of neurotrophic factors having in common structural and functional characteristics.

Please replace the paragraph beginning on page 2, line 21 with the following amended paragraph:

Indeed, further neurotrophic factors closely related to β -NGF and BDNF have since been discovered. Several groups identified a neurotrophic factor originally called neuronal factor (NF), and now referred to as neurotrophin-3 (NT-3) SEQ ID NO: 43 (Ernfors et al., Proc. Natl. Acad. Sci. USA 87, 5454-5458 (1990); Hohn et al., Nature 344, 339 [1990]; Maisonpierre et al., Science 247, 1446 [1990]; Rosenthal et al., Neuron 4, 767 [1990]; Jones and Reichardt, Proc. Natl. Acad. Sci. USA 87, 8060-8064 (1990); Kaisho et al., FEBS Lett. 266, 187 [1990]; copending U.S. application Ser. No. 07/494,024 filed Mar. 15, 1990). NT-3 shares about 50% of its amino acids with both β -NGF and BDNF (NT-2). Neurotrophins-4 and -5 (NT-4 (SEQ ID NO: 44) and NT-5), have been recently added to the family (copending U.S. application Ser. No. 07/587,707 filed Sep. 25, 1990; Hallbook, F. et al., Neuron 6, 845-858 [1991]; Berkmeier, L. R. et al., Neuron 7, 857-866 [1991]; Ip et al., Proc. Natl. Acad. Sci USA 89, 3060-3064 [1992]). The mammalian molecule initially described by Berkmeier et al. supra, which was subsequently seen to be the homolog of Xenopus NT-4, is usually referred to as NT-4/5 (SEQ ID NO: 45).

Please amend the specification by inserting the amended Sequence Listing after the Abstract on page 120 in place of the previous Sequence Listing.

Amendments to the Sequence Listing

Enclosed is an amended Sequence Listing including SEQ ID NO: 42, SEQ ID NO: 43, SEQ ID NO: 44, and SEQ ID NO: 45. Please replace the Sequence Listing in this application with the enclosed amended Sequence Listing.

The following are the additional sequences added to the previously filed sequence listing:

SEQ ID NO: 42 (BDNF)

MTILFLTMVISYFGCMKAAPMKEANIRGQGGLAYPGVIRTHGTLESVNGPKAGSRGLTSLADTFEHMIEELLDEDDQKV
RPNEENNKDADLYTSRVMSSQVPLEPPLLFLLEEKNYLDAANMSMRVRRHSDPARRGELSVCDSEWVTAADKK
TAVMSGGTVTVLEKVPVSKGQLKQYFYETKCNPMGYTKEGCRGIDKRHWNSQCRTTQSYVRALTMDSKKRIGWRFI
RIDTSCVCTLTIKRGR

SEQ ID NO: 43 (NT-3)

msilfyviflaylrgiqgnnmdqrsdpedslnsliikligadilknklskqmvdkenyqstlpkaeaprepeggea
trsefqpmiatdtellrqrrynsprvllsdstpleppplylmedyvgnpvvtnrtsprrkryaehkshrgeysvcd
seslwtdkssaidirghqvtvlgeiktgnspvkqfyetrckearpvkngcrgiddkhwnsqcktsqtyvraltse
nnklvgwrwiridtsvcalsrkigrt

SEQ ID NO: 44 (NT-4)

mlplpscslpillllflpsvpiesqpppstlppflapewdllsprvvlsgapagppllflleagafresagapanr
srrgvsetapasrrgelavcdavsgwvtdrrtavdlrgrevevlgevpaaggsplrqqyffetrckadnaeeggpgag
gggcrvgvdrhvwseckakqsyvraltadaqgrvgwrwiridtacvctllsrtgra

SEQ ID NO: 45 (NT-4/5)

mlplpscslpillllflpsvpiesqpppstlppflapewdllsprvvlsgapagppllflleagafresagapanr
srrgvsetapasrrgelavcdavsgwvtdrrtavdlrgrevevlgevpaaggsplrqqyffetrckadnaeeggpgag
gggcrvgvdrhvwseckakqsyvraltadaqgrvgwrwiridtacvctllsrtgra